

REMARKS

The foregoing Amendment and remarks which follow are responsive to the Office Action mailed July 7, 2005 in relation to the above-identified patent application. In that Office Action, the Examiner indicated that Claims 10 and 17 were withdrawn from further consideration pursuant to 37 C.F.R. §1.142(b), and rejected Claims 1, 8 and 9 under 35 U.S.C. §102(b) as being anticipated by the Gaumet reference. Additionally, the Examiner rejected Claims 2-4, 11-13 and 18-20 under 35 U.S.C. §103(a) as being unpatentable over the combination of the Gaumet and Kato references, and rejected Claims 5 and 14 under Section 103(a) as being unpatentable over the Gaumet reference. Further, Claims 1, 5, 9 and 14 were rejected under Section 102(b) as being anticipated by the Hoppe reference, with Claims 5 and 14 being rejected under Section 103(a) as unpatentable over the combination of the Gaumet and Hoppe references, and Claims 6, 7, 15 and 16 being rejected under Section 103(a) as being unpatentable over the Gaumet or Hoppe references in combination with the Houdeau reference.

Summary of Claim Amendments

By this Amendment, Applicant has canceled Claims 2 and 11, and has amended Claims 1, 3, 4, 9, 12, 13 and 19. More particularly, independent Claims 1 and 9 have each been amended to describe the leads as being arranged in a first row which circumvents the die pad in spaced relation thereto, and a second row which circumvents the first row. Claims 4 and 13 have each been amended to recite at least one continuous ring structure circumventing the die pad and extending between the die pad and the leads of the first row. Similarly, Claim 19 has been amended to recite at least one continuous ring structure disposed between the die pad and the inner row of the leads. Finally, Claims 3 and 12 have each been amended only to change their dependency to the corresponding, underlying independent claim.

Amended Independent Claims 1 and 9 are Not Anticipated by the Gaumet Reference

As indicated above, independent Claims 1 and 9 have each been amended to recite ***“the leads being arranged in a first row which circumvents the die pad in spaced relation thereto and a second row which circumvents the first row.”***

In contrast, the Gaumet reference teaches an insulating support 2 having a central hole 3 and peripheral holes 4. Disposed on one of the sides or faces of the insulating support 2 is a central conductive element 5 which appears to overlap the central hole 3, and lateral conductive elements 6 which appear to overlap respective ones of the peripheral holes 4. Disposed within the central hole 3 and mounted to the central conductive element 5 is an integrated circuit 7 which is electrically connected to the lateral conductive elements 6 by lead wires 8 which pass through the peripheral holes 4. The insulating support 2, central and lateral conductive elements 5, 6, integrated circuit 7, and an insulating material 9 which encapsulates the integrated circuit 7 and wires 8 collectively define a module 1. As is best shown in Figure 1 of the Gaumet reference, the lateral conductive elements 6 are arranged in only a single row which extends about the central conductive element 5. In this regard, the Gaumet reference is devoid of any teaching or suggestion regarding the inclusion of a second, outer row of lateral conductive elements 6 circumventing a first, inner row which itself circumvents the central conductive element 5.

In addition, Applicant respectfully submits that the teachings of the Gaumet reference do not support any hypothetical combination with the teachings of the cited Kato reference to support an obviousness rejection of amended independent Claims 1 and 9 based on such combination. It is well settled that the combination of elements from non-analogous sources, in a manner that reconstructs the Applicant's invention only with the benefit of hindsight, is insufficient to present a *prima facie* case of obviousness. In this regard, there must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination. See Diversitech Corp. v. Century Steps, Inc., 850 F. 2d 675, 678-79, 7 USPQ 2d 1315, 1318 (Fed. Cir. 1988).

The Gaumet reference is directed to a “contactless” smart card which includes the above-described module 1. In stark contrast, the Kato reference is directed to a conventional pin grid array semiconductor device having a multiplicity of pins which protrude from a common surface of an insulating substrate in a prescribed pattern. In view of the disparities

in their teachings, Applicant respectfully submits that one of ordinary skill in the art considering the Gaumet reference would clearly not be motivated to combine the teachings of the Kato reference thereto for purposes of hypothetically modifying the module 1 to include a multiplicity of pins protruding from the insulating material 9 in any pattern or arrangement, or to include an arrangement of lateral conductive elements 6 different from that shown and described in the Gaumet reference. Thus, Applicant respectfully submits that it would only be with the application of disfavored hindsight that the module 1 described in the Gaumet reference could be modified based on the teachings of the Kato reference to include lateral conductive elements 6 arranged in a first row which circumvents the central conductive element 5, and a second row which circumvents the first row.

On the basis of the foregoing, Applicant respectfully submits that independent Claims 1 and 9 are not anticipated by the Gaumet reference, and are not rendered obvious by the combination of the Gaumet and Kato references. Thus, Applicant respectfully submits that Claims 1 and 9 as amended are in condition for allowance, as are Claims 3-8, 10 and 12-16 as being dependent upon respective allowable base claims.

Amended Independent Claims 1 and 9 are Not Anticipated by the Hoppe Reference

With regard to the Section 102(b) rejection of independent Claims 1 and 9 based on the Hoppe reference, Applicant respectfully submits that the Hoppe reference suffers from the same deficiencies as the Gaumet reference in the context an anticipation rejection under Section 102(b). In the Hoppe reference, coupling elements 5 are disposed on one side or face of a carrier film 11. The carrier film 11 includes windows 15 for receiving an integrated circuit 17 and allowing for the passage of electro-conductive connecting elements 19 from the integrated circuit 17 to the contact surfaces 5. As is apparent from Figure 1 of the Hoppe reference, the contact surfaces 5 are not arranged in a first row which circumvents a die pad in spaced relation thereto, and a second row which circumvents the first row. Nor is there any teaching or suggestion in the Hoppe reference regarding the inclusion of multiple, concentric rows of the contact surfaces 5.

Moreover, Applicant respectfully submits that any potential obviousness rejection of amended Claims 1 and 9 based on the combination of the Hoppe and Kato references is inappropriate and based on nothing more than disfavored hindsight for the same reasons

discussed above in relation to Claims 1 and 9 in the context of the hypothetical combination of the Gaumet and Kato references. In this regard, similar to the Gaumet reference, the Hoppe reference is directed to an identity card 1 wherein a carrier element 14 (which includes the contact surfaces 5 and carrier film 11) is inserted into the standardized recess 9 included in the body 7 of the card 1. Applicant respectfully submits that such card 1 is clearly non-analogous to the pin grid array semiconductor device described in the Kato reference.

On the basis of the foregoing, Applicant respectfully submits that independent Claims 1 and 9 are not anticipated by the Hoppe reference, and are not rendered obvious by the combination of the Hoppe and Kato references. Thus, Applicant respectfully submits that Claims 1 and 9 as amended are in condition for allowance, as are Claims 3-8, 10 and 12-16 as being dependent upon respective allowable base claims.

Amended Claims 4 and 13 are Not Rendered Obvious by the Combination of the Gaumet and Kato References

As indicated above, Claims 4 and 13 have each been amended to describe ***“at least one continuous ring structure circumventing the die pad and extending between the die pad and the leads of the first row.”*** In the Office Action, the Examiner contends that the innermost row of pins in the various embodiments of the semiconductor device shown in the Kato reference satisfies the “ring” feature recited in each of Claims 4 and 13.

Firstly, Applicant respectfully submits that the proposed combination of the Gaumet and Kato references in support of the Section 103(a) rejections of Claims 4 and 13 is based on the application of disfavored hindsight for the reasons discussed above in relation to independent Claims 1 and 9, and therefore should be withdrawn on this basis. Even assuming, arguendo, that such combination is proper, Applicant respectfully submits that the Kato reference still does not teach or suggest a ***“continuous ring structure”*** as now recited in amended Claims 4 and 13. Thus, Applicant respectfully submits that Claims 4 and 13 are in condition for allowance on this separate basis.

Independent Claim 18 is not Rendered Obvious by the Combination of the Gaumet and Kato References.

In its original format, independent Claim 18 describes the leads attached to the film as being arranged ***“in at least inner and outer rows which each circumvent the die pad.”*** Applicant respectfully submits that Claim 18 is not rendered obvious by the combination of the Gaumet and Kato references for the same reasons described above in relation to Claims 1 and 9 in the context of the hypothetical combination of the Gaumet and Kato references.

Thus, Applicant respectfully submits that independent Claim 18 is not rendered obvious by the combination of the Gaumet and Kato references and is in condition for allowance, as are Claims 19-20 as being dependent upon an allowable base claim.

Amended Claim 19 is Not Rendered Obvious by the Combination of the Gaumet and Kato References

Similar to Claims 4 and 13 discussed above, Claim 19 has been amended to recite ***“at least one continuous ring structure”*** disposed between the die pad and the inner row of leads. Applicant respectfully submits that Claim 19 as amended is not rendered obvious by the combination of the Gaumet and Kato references for the same reasons discussed above in relation to Claims 4 and 13, and thus is in condition for allowance.

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Conclusion

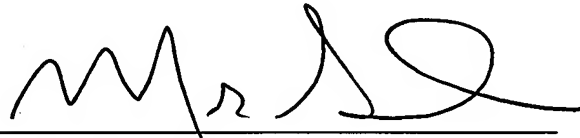
On the basis of the foregoing, Applicant respectfully submits that the stated grounds of rejection have been overcome, and that Claims 1, 3-9, 12-16 and 18-20 are now in condition for allowance. An early Notice of Allowance is therefore respectfully requested.

If any additional fee is required, please charge Deposit Account Number 19-4330.

Respectfully submitted,

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